[COMMITTEE PRINT]

THE CHANGING STRATEGIC NAVAL BALANCE

U.S.S.R. vs. U.S.A.

Prepared at the Request of the

COMMITTEE ON ARMED SERVICES

HOUSE OF REPRESENTATIVES

NINETIETH CONGRESS

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LETTER OF TRANSMITTAL

MEMBERS, HOUSE COMMITTEE ON ARMED SERVICES

TO THE MEMBERS: The ability of the United States to maintain its commerce and abide by its military commitments to other nations is basic to our entire defense posture. In Southeast Asia we have supplied 98 percent of our goods by sea and 300,000 of our troops traveled there in ships.

Because of my concern for what has been happening to America's sea power I established a Special Subcommittee on Sea Power on September 24. Prior to that I requested the American Security Council to examine the situation with respect to our sea power using unclassified sources, as they did when I earlier requested them to examine our strategic military power. Their earlier report, "The Changing Strategic Military Balance: USA vs. USSR" was a result of their examination of the unclassified material available in the open literature. The present report, "The Changing Strategic Naval Balance: USSR vs. USA" is also the result of their study of unclassified statements. This report is being presented as a Committee Print in order to be available for all so that they may see what is involved in our present situation.

I wish to express my appreciation for the work involved in preparing this study to John Fisher, President of the American Security Council, and to Admiral H. D. Felt, USN (Ret.), who chaired the Special Subcommittee responsible for this particular study.

As I said in my letter of transmittal on "The Changing Strategic Military Balance", while the Committee on Armed Services does not take any position as to the accuracy of the statements contained in the report and can neither affirm nor deny the whole or any portion, I believe, nevertheless, that the report deserves careful analysis.

L. MÉNDEL RIVERS,
Chairman.

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FOREWORD

This study on *The Changing Strategic Naval Balance* has been prepared for the House Armed Services Committee at the request of Committee Chairman L. Mendel Rivers. It is a follow-on study to *The Changing Strategic Military Balance: U.S.A. VS. U.S.S.R.*, a study that the National Strategy Committee of the American Security Council conducted last year, also at the request of the House Armed Services Committee.

In requesting this study, Chairman Rivers asked that this same committee make an assessment of the growth and significance of the Soviet maritime establishment based *on unclassified sources only.*

We have drawn upon our own experience and utilized the experience and insights of many naval specialists in the United States and abroad. We have consulted with many thoughtful students of sea power and of Soviet military and political operations. In addition, we have made use of many monographs, reports and essays on various phases of Soviet sea power, ranging from oceanography to port development. Some of the more useful sources for specifics on the new Soviet sea power included testimony before Congressional committees by spokesmen for the U. S. Navy and other Defense Department personnel. Public presentations by senior commanders also have been utilized. Among the reliable professional publications that proved to be of aid to this subcommittee were *The Military Balance* of the Institute for Strategic Studies, *Proceedings* of the U. S. Naval Institute, Royal United Service Institution *Journal, Astronautics & Aeronautics, Survival, Naval Review,* Navy League's *NAVY: The Magazine of Seapower, Marine Corps Gazette, Marine Rundschau, Revue Militaire Generale, Naval War College Review, Naval Engineers Journal,* and *Jane's Fighting Ships.* Material published after September 1968 has not been included in this study.

We believe that these sources are adequate as to the general character of Soviet ships and naval ordnance, although these sources do not compare with the classified sources available to defense intelligence officials. Thus, since the U.S.S.R. Navy is growing rapidly, ship counts based on good unclassified sources understate the U.S.S.R. side of the naval balance. Nevertheless, we are convinced that the open sources are fully adequate to give the broad dimensions of the Soviet naval build-up, and that from a study of them it is possible to discern and describe the

strategic concepts governing the U.S.S.R.'s massive and growing maritime establishment.

While this study details ship types and naval weapons systems developed and utilized by the Soviet Navy, primary emphasis is placed upon the Soviet Union's new understanding of the uses of sea power. The U.S.S.R.'s new oceanic vision is the development with the largest historic importance and the greatest significance for oceanic defense of the United States and its free world allies. Thus, the study explores the use being made of Soviet naval might to promote the interests of the U.S.S.R. and the Communist system.

In preparing this study, we have stressed Soviet maritime capabilities and set these in perspective against the state of American naval forces. We strongly believe that the Soviet Union's massive move of strategic power to the oceans dictates a rapid build-up and modernization of American sea power but we have not recommended U. S. naval force levels or fleet dispositions.

Respectfully submitted,

signed / Admiral H. D. Felt, USN (Ret.)
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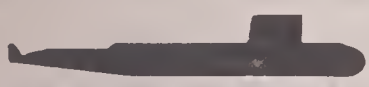
General Albert C. Wedemeyer, USA (Ret.)
Major General W. A. Worton, USMC (Ret.)
as members of a special subcommittee of the National Strategy Committee of the American Security Council.

OPERATIONAL NAVAL STRENGTH

U.S.A.		U.S.S.R.	
 Attack submarines	105	 Attack submarines	250
 Missile submarines	41*	 Missile submarines	100*
Surface to surface missile ships, destroyers and cruisers,	0**	 Surface to surface missile ships, destroyers and cruisers,	25
 Conventional destroyers	177	 Conventional destroyers	86
 Minecraft	86	 Minecraft	300
Missile patrol boats	0	 Missile patrol boats	150
 Helicopter carriers	8	 Helicopter carriers	3
 Anti submarine warfare carriers	8	Anti submarine warfare carriers	0
 Attack carriers	16	Attack carriers	0
 Battleships	1	Battleships	0

*Includes submarines equipped for cruise missiles as well as ballistic missiles. All U.S. boats equipped for ballistic missiles.
U.S. has substantial lead in number of submarine launched missiles.

**The U.S.A. does have 71 *surface-to-air* missile equipped major ships.

I. NAVAL OBJECTIVES: U.S.S.R. VS U.S.A.

The existing and programmed strength and composition of U. S. and Soviet naval forces is rooted in the respective national objectives of the two countries. The United States is the leader of an alliance of an inter-oceanic community of free nations that have major maritime interests and that depend on freedom of the seas. To uphold the cause of freedom, whether in Southeast Asia, Europe or Latin America, it is imperative that the United States have unrestricted use of the world's oceans and that it be able to exercise naval supremacy in a variety of possible war situations.

Thus, if the United States fails to maintain a clear lead in all significant forms of naval power, if the strategic naval balance is not in its favor, the United States will be unable to fulfill its role as leader of the free and independent nations of the world. Furthermore, as the Soviets are strongly emphasizing strategic naval forces—shifting much of their increasing missile power to sea—it is imperative that the United States have superior naval forces with which to deal with the new Soviet threat.

In recent years, despite the tremendous growth of the Soviet naval and maritime establishment and the continuing growth that the U.S.S.R. has planned for the Soviet Navy, there continues to be inadequate U. S. response to the new Communist challenge on and under the seas. The inadequate level of response to challenge gives cause for concern in view of the ample evidence of increasing Soviet naval capabilities and the bold employment of Soviet naval forces in crisis situations.

If the United States intends to maintain the sea power supremacy it gained during World War II and has held to the present, it will have to significantly augment its naval forces for the contests ahead.

A. Soviet Naval Objectives

For the first time in its history, the Soviet Union is developing an offensive maritime strategy and is seeking supremacy at sea.

The naval forces now being created by the Soviet Union and the uses of sea power now being made by the U.S.S.R. are part of the overall Communist design of total victory in the struggle against the United States and other free world nations. Even as the Soviets have developed massive ground and air forces and have armed themselves for warfare in space, they are striving to dominate the oceans.

Also, acute sensitivity to the strategic importance of control of "narrow waters" and "water gates" has been a natural inheritance of the

Soviet Union from Czarist Russia. Lack of warm weather, fully adequate all-weather ports, constriction of naval and merchant marine operations from Kronstadt and St. Petersburg (Leningrad) through the narrow waters of the Gulf of Finland and the Kattegat, the restrictive barricade of the Bosporus and Dardanelles at the exit of the Black Sea, and the debacle of Tsushima Strait in the 1904-5 Russo-Japanese War combined to create a legacy of frustration which helped drive Soviet Russia to break through water gates and narrow waters to the open seas of the world.

Behind the new Soviet sea power is an awareness that Communist domination of the globe can only be achieved by supremacy at all major points on the spectrum of conflict. The leadership of the U.S.S.R. is determined to obtain superiority over the United States and its allies under all combat conditions.

The Soviets have acquired an oceanic vision. They know that the sea is the major artery giving life to the free world.

Admiral Thomas H. Moorer, USN, Chief of Naval Operations, has said of Soviet naval forces:

> "By any measuring stick, they (the Soviets) are today the second largest sea power in the world. In a mere 10 years, the Soviet Union with dedication of purpose, large outlays of funds, and with priorities equivalent to or even surpassing their space program, has transferred itself from a maritime nonentity to a major seapower."[1]

The Soviet fleet now includes 250 attack submarines, 100 missile-firing submarines, (50 of their submarines are nuclear-powered), 25 surface-to-surface missile-equipped major warships, 86 conventional destroyers, approximately 300 minecraft, 150 missile-armed fast patrol boats, three helicopter carriers and many other types of warships. The Soviets have more than 2,000 naval vessels in commission. Virtually all of these vessels are of post-World War II construction. Backing up the Soviet Navy is a modern merchant marine—the fifth-ranking merchant navy—of approximately 1,400 ships of 10.4 million tons.

Soviet naval forces also are designed to vastly enlarge the zone of Soviet psycho-political pressure. In addition, they are a major component of Soviet striking power in limited and general war.

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1. From an address by Admiral Thomas H. Moorer, U. S. Navy, Chief of Naval Operations, at The American Legion National Convention in New Orleans, Louisiana, September 11, 1968.

The Soviet determination to cancel America's sea power advantage has been candidly stated by Admiral Sergei Gorshkov, the Soviet fleet commander. "The flag of the Soviet Navy," he has said, "now proudly flies over the oceans of the world. Sooner or later, the U. S. will have to understand that it no longer has mastery of the seas."[2]

Marshal M. V. Zakharov, Soviet Chief of Staff, said in a press conference February 16, 1968: "The time when Russia could be kept out of the world's oceans has gone forever. The imperialists can no longer have them to themselves. We shall sail all the world's seas; no force on earth can prevent us."

Shortly before his death in early 1967, Marshal Rodion Malinovsky, the Soviet Minister of Defense, placed sea power on a par with the U.S.S.R.'s missile command when he declared that in Soviet planning; "First priority is being given to the strategic missile forces and atomic missile-launching submarines—forces which are the principal means of deterring the aggressor and decisively defeating him in war."[3]

In the absence of a general war situation, Soviet naval forces have politico-military missions to perform, plus support of "wars of liberation" and various interventionist operations. In general war, the Soviet warships undoubtedly would strike at free world sea-based power, at merchant shipping, and at bases, ports and coastal industrial centers in many parts of the world. The U.S.S.R.'s attack submarine force—more than twice the size of the U. S. undersea counter force—obviously prepares for the mission of cutting the free world's lines of communications—the movement of oil and minerals essential to the industrial machine of the West. The nuclear-armed submarines would have the mission of launching missile attacks at naval bases, missile-launching facilities, strategic centers and airfields in coastal regions, and at large strategic and population centers within firing range of the oceans. If the Soviets determined on a surprise attack, they could deploy their naval forces well before D-day, not only for direct attacks on land targets but also at the critical points on the shipping lanes. In addition, Soviet naval forces would be engaged in supporting Soviet ground troops in a sweep across Europe or into the Middle East.

In determining the full dimensions of the U.S.S.R.'s oceanic objectives, it is not enough to consider the construction and deployment of warships. The U.S.S.R.'s maritime strategy also involves the build-up

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2. Admiral Sergei Gorshkov quoted by General H. J. Kruls in *NATO's Fifteen Nations,* June-July, 1968. p. 12.
3. *Current History,* October, 1967.

of a massive merchant fleet. This fleet makes possible the leap-frogging of Soviet power from contiguous land masses to countries that are dependent on sea transport, such as Cuba and North Vietnam.

Not only are the Soviets employing their merchant marine to support a war thousands of miles from the principal cities of the U.S.S.R., but they are also utilizing their merchant navy to disrupt world trading patterns and to manipulate and undermine ocean freight rates.[4]

Thus, the Soviet Union has in its maritime establishment a powerful instrument of international pressure and economic warfare. The Soviet ships can be used by Moscow to drive the Western countries out of traditional markets and disrupt free world economies.

The Soviet merchant marine program for the future gives indication of Moscow's ambitions at sea. By 1980, the Soviets plan to have 20 million tons of shipping and to possess the largest merchant navy in the world.

The meaning of the various Soviet moves at sea is that the U.S.S.R. plans a global employment of its naval forces. It already dominates the central land mass on this planet. Now it seeks control of what geopolitical thinkers refer to as the "world ocean." To many Americans this strategic picture may come as something of a shock; heretofore it has been assumed by many that the Soviet Union's naval forces had only defensive missions.

B. U. S. Naval Objectives

While the Soviet Union carries out an across-the-board expansion of naval might that is aimed at giving Communism primacy on all the oceans, the United States is moving at a dangerously slow pace in replacing aging ships constructed during World War II and in developing new sea-based strategic systems. For example, in the 1960's, the civilian defense leadership resisted rapid modernization of the U. S. Navy, which suggests that the seriousness of the Soviet oceanic challenge has not been grasped by influential segments of public opinion.

Certainly, any thorough inspection of the overall strategic position of the United States will indicate plainly that the United States needs control of the ocean spaces. Since the end of World War II, the United States has been committed to a struggle to maintain peace with freedom and to protect those nations that wish to avoid Soviet conquest and domination. In almost every phase of this effort, U. S. naval forces have

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4. Verner R. Carlson, *Proceedings* of the U. S. Naval Institute, May, 1967. p. 48.

played a significant role. In the Vietnam conflict, for example, 98 percent of the war material transported to Vietnam has moved by ship under the protection of the U. S. Navy.

The principal American aims in maintaining strong naval forces are: 1) protection of the territory and independence of the United States; 2) deterrence of World War III; 3) protection of the territory and independence of allied and friendly nations; 4) preservation of the vital overseas interests of the United States; and 5) maintenance of normal oceanic trade so that the United States and other peaceful states may receive and ship raw materials and finished goods.

To accomplish these aims, the United States has maintained the largest navy in the world with powerful offensive and defensive capabilities in its surface, sub-surface and aerial forces.

Because of the global commitments of the United States, the United States Navy has to be prepared for a great variety of naval contingencies, including amphibious operations, riverine warfare, anti-submarine warfare, protection of vital sea lanes, heavy air strikes against inland targets and strategic ballistic missile attacks against pre-assigned targets. Admiral Moorer has said in this connection that "our weapon systems must have ready and reliable 'scaled firepower' to guarantee the success of our strategies and tactics in every situation."[5]

In view of the many possible contingencies, U. S. naval forces have to be of an exceptionally high caliber, cover a wide spectrum and be able to go anywhere with proper logistic support. The United States cannot afford weakness in any element of sea power. The United States requires a large, balanced fleet with considerable numbers of modern warships of all types, ranging from minecraft to nuclear submarines.

The naval burdens on the United States certainly will increase markedly in the 1970's. Great Britain's withdrawal East of Suez has created an enormous power vacuum in the 28 million square miles of the Indian Ocean. The old imperial lifelines still are important in the final third of the 20th century, when many old and new nations are threatened by Soviet and Chinese Communist imperialism. The United States will have to guard these lifelines with its ships for, as President Lyndon B. Johnson has said, "there is no one else" to do the job.[6]

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5. From an article by Admiral Thomas H. Moorer in *Ordnance,* May-June, 1968. p. 559.
6. Statement by President Lyndon B. Johnson cited by George E. Lowe in *Proceedings* of the U. S. Naval Institute, June, 1968. p. 32.

In this period of shrinking overseas bases, it is necessary for more of America's power to be moved to sea and to the ocean depths. It may be desirable, for example, for the U. S. to develop a forward sea-based anti-ballistic missile intercept system (SABMIS). Sea power offers forward protection, mobility and flexibility in this atomic-missile era.

If the United States is to accomplish the aims for which it creates and maintains the naval forces, nuclear power for surface ships and other progressive developments must be accented in the years ahead. The potential of innovation in naval ordnance must be exploited to full advantage. Deep submergence vessels must be designed and constructed for the undersea warfare of the 1970's and 1980's. The possibilities of sea power barely have been touched. Each innovation in warship design and in naval weaponry triggers fresh opportunities and dangers in the confrontation with the U.S.S.R.

The United States has to keep in mind the importance of naval innovation and the danger of obsolescence. Unfortunately, the strategic notions of "parity", popular during the McNamara years, had among their by-products the throttling of efforts to achieve maximum naval advantage vis-a-vis the Soviet Union. American restraint in naval construction in the 1960's has failed to bring any slowdown in the U.S.S.R.'s naval construction program. The Soviet sea power drive shows that disarmament by restraint won't work.

It is both tragic and extraordinary that the U. S. Department of Defense ever thought that parity with the Soviets would open an avenue to lasting peace in the world. Soviet military theorists have always been perfectly frank in stressing the importance of military superiority and the absurdity of the parity concept.

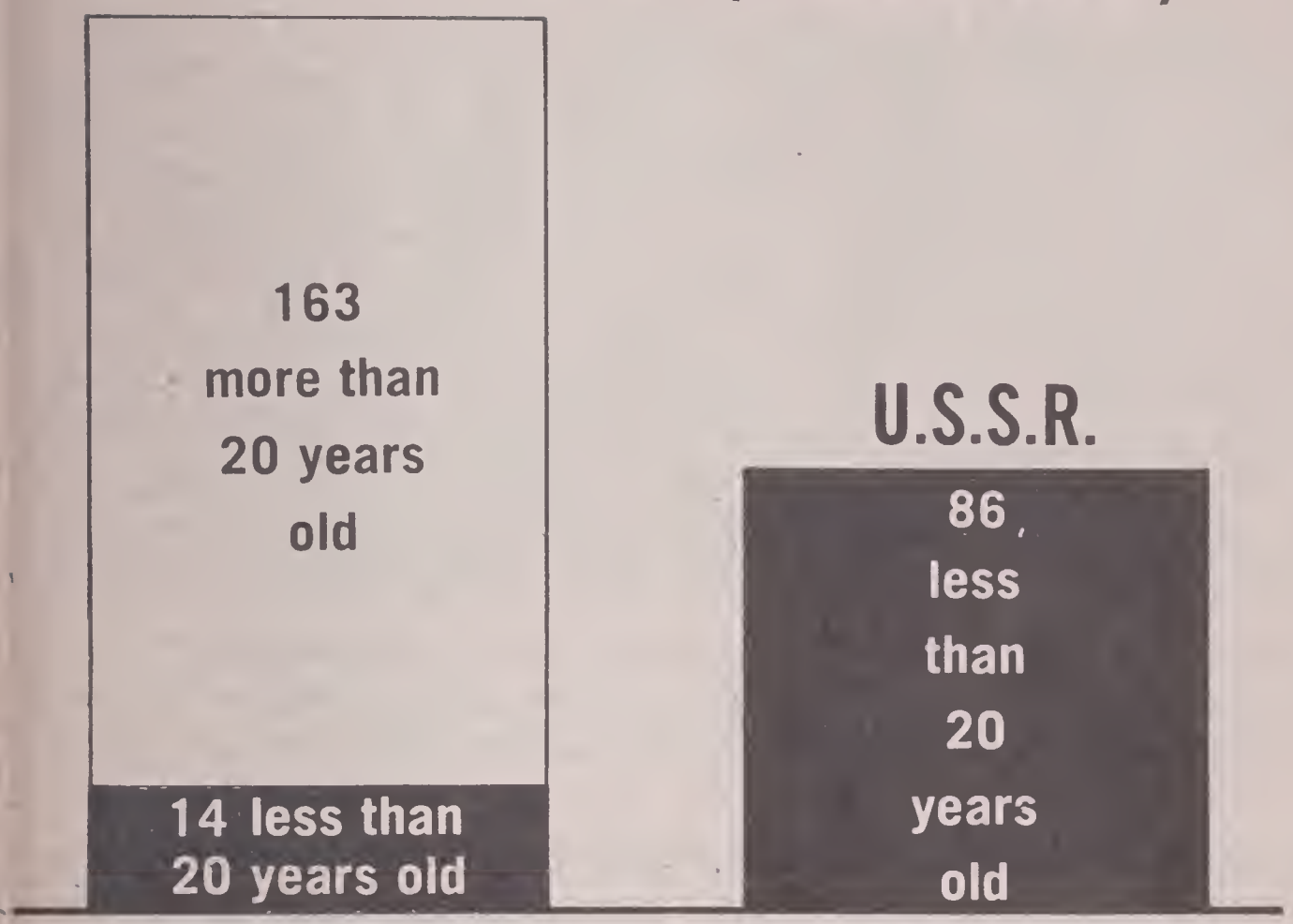
For example, Major General Nikolai Talensky, a senior Soviet strategist, said in 1962:

> "It was impossible . . . to reach a state of balanced military power. How could one achieve qualitative parity in weapons, even if 'quantitative parity' were to be accepted in principle? How could one find equivalents for various types of rockets and bombs? Given an equal number of missiles on both sides, differences in deployment could upset the balance. . . . Therefore . . . it would be impossible to achieve stable peace through balanced deterrence."

In the post-McNamara era, it is essential that Americans understand that there is no safe plateau of sea power on which this nation can rest in comfortable fashion. On the contrary, there is accelerating improvement in naval warfare systems, with no end in sight.

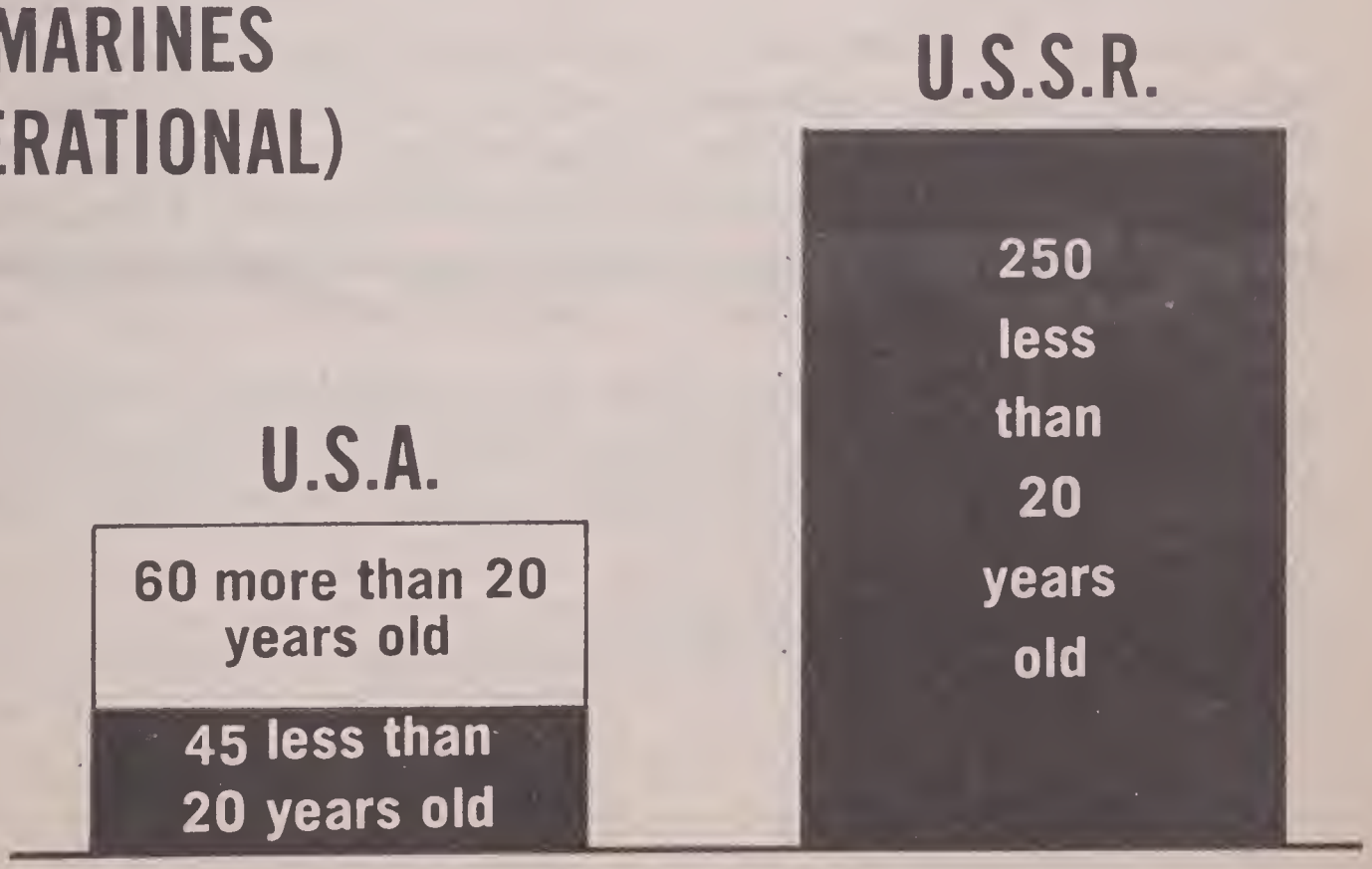
The danger to the United States lies in failure to respond with maximum effort to the Soviet naval challenge. The implications of a failure of U. S. leadership at sea, were it to occur, are staggering. To contemplate a loss of U. S. naval supremacy is to contemplate disaster on an epochal scale. The freedom of the United States and its allies is anchored in control of the oceans. The construction of ships takes much time, however, as does establishment of new task forces and fleets. In order to prevent the Soviets from realizing their ambitions at sea, the United States will have to move aggressively in the next few years in a crash build-up of all sea-based strategic forces.

AGE OF CONVENTIONAL DESTROYERS (OPERATIONAL)



Two-thirds of the U.S. Active fleet is over 20 years old. Only one-tenth of the U.S.S.R. fleet is over 20 years old. The figures on this page show the breakdown in two categories.

AGE OF ATTACK SUBMARINES (OPERATIONAL)



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SECTION II. UNDERSEA FORCES

A. Soviet Undersea Forces

Of all the elements of Soviet naval strength, the most alarming is the growth of its submarine force. The chief naval threat comes from the U.S.S.R.'s huge undersea fleet of 250 attack submarines and 100 missile-firing submarines, the largest force of submarines ever created. This Soviet submarine force is a vast aggregation of undersea might compared with the handful of U-boats with which Hitler began his naval offensive in World War II. This small force of German submarines, totaling 56 boats (or less than one-sixth the Soviet Union's undersea fleet in 1968), was minor in effectiveness compared to the Soviet submersibles of today. Yet the German subs caused the United States and Britain great losses in the Battle of the Atlantic. In spite of commencing an all-out building program, the U. S. ship construction rate did not exceed the German destruction rate until well into 1943. Another relevant factor today is that the anti-submarine warfare capability of the U. S. and allied navies still lags behind the submarine warfare threat. Recent deactivation of 50 warships and 100 naval aircraft, many of them anti-submarine warfare planes, underscores U. S. weakness in this critical field of naval operations.

With regard to the composition of the Soviet submarine force, *Jane's Fighting Ships* reports that "this year the numerical strength (of the U.S.S.R.'s undersea fleet) seems to have held and to have tilted upwards, but, of course, in aggregate power the Soviet submarine fleet is immensely stronger from the influx of big modern and nuclear-powered submarines at the head and the draining off of the older and smaller boats at the tail."[7] *Jane's* also reports that the Soviet Union plans to utilize submarines as launching platforms for a major portion of its missile arsenal.[8]

Of major significance is the fact that the Soviet Union now possesses submarines with an underwater launch capability, indicating that the U.S.S.R.'s submarine builders have mastered the kind of technology pioneered by the United States in the development of the Polaris fleet ballistic missile submarines.[9] These Soviet submarines reportedly can fire their missiles from below the ocean's surface to a range of 800 miles.

While the United States has more sophisticated submarine-based missiles than the Soviet Union and many more of them, the U. S. has halted construction of fleet ballistic missile submarines whereas the

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7. *Jane's Fighting Ships,* 1967-1968. p. V.
8. Ibid., p. V

Soviets are continuing with a large program of missile-firing submarine construction. The U.S.S.R.'s missile-submarine construction capacity is estimated at 20 such submarines per year. For the long run, what is of central importance is the programmed undersea fleet of the Soviet Navy, not the existing fleet.

While the Soviets are rapidly expanding their submarine missile force, they also are consolidating their lead in attack submarines.[10] With at least 250 attack submarines, the Soviet Navy has more than a 2 to 1 numerical advantage over the U. S. Navy in this area of sea warfare. Almost all of the Soviet attack submarines have been built within the last 13 years, whereas only 45 of the 105 U. S. attack submarines are of post-World War II construction. The Soviet Union's force of non-missile submarines cannot be dismissed as a minor threat. These undersea craft represent a serious threat to U. S. surface forces. It is easy to grasp what would be the effect on the giant American sealift to Vietnam if vessels in transit had to deal with attacks by conventional submarines.

In facing up to the Soviet undersea challenge, the U. S. also has to bear in mind that the era of deep submergence fighting craft is only beginning. As the Soviets sought and achieved leadership in orbital weapons, they most assuredly are seeking superiority in the weapons of inner space—the ocean depths. The Soviets already have attempted to buy commercially-developed American research submarines capable of descending to great depths. As new steels are developed, new types of undersea combat craft will be built—and a new naval race, as part of the Cold War, can be expected.

B. U. S. Undersea Forces

The U. S. Navy's submarine force, with 41 Polaris submarines and 105 diesel and nuclear-powered attack submarines now in the fleet, is static in terms of numbers. Former Secretary of Defense McNamara, in his statement on the 1969-1973 defense program, acknowledged (1/22/68) that "the Polaris-Poseidon program is essentially the same as the one I presented last year."[11] Though 31 of the 41 Polaris submarines will be equipped with the more sophisticated Poseidon missile, no new

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9. A statement at a press conference July 17, 1968, given by Admiral John McCain Jr., then Commander-in-Chief, U. S. Naval Forces, Europe.
10. Report No. 1645 of the U. S. House of Representatives, printed July 5, 1968.
11. *Posture Statement* of former Secretary of Defense Robert S. McNamara before the Senate Armed Services Committee on the fiscal year 1969-73 defense program and 1969 defense budget, January 1, 1968. p. 71. (Hereafter referred to as *Posture Statement,* January 1, 1968.)

missile-firing submarines are planned. A follow-on submarine system called ULMS (underwater long-range missile system) has been proposed by the Navy, but only preliminary studies have been authorized.[12] Submarines of this type, which will be needed in the future, would carry intercontinental missiles and could be on target as soon as they leave port.

The cut-off of U. S. fleet ballistic missile submarine construction, while the Soviet Union continues to build missile submarines, should be a matter of deep concern. The halt in American missile submarine construction gives the Soviet Union an opportunity to take the lead in this type of warfare system.

To date, the most advanced U. S. submarine is the *USS Dolphin*, launched in early June, 1968. This undersea craft displaces 900 tons and is capable of firing submarine-rocket weapons. According to *Ocean Science News*, the *Dolphin* will be able to dive to around 6,000 feet. She will have a secondary role as an oceanographic research craft.

Senator John O. Pastore, the Chairman of the Joint Committee on Atomic Energy, has said:

> "It is now clear to the Committee that the Department of Defense has grossly underestimated the rate at which the Soviets are improving their nuclear submarines. The Committee is concerned that the Department of Defense does not apparently fully appreciate the significance of the rapid strides being made by the Soviets in this field."[13]

Specialists in submarine warfare also are concerned about the limitation on the numbers of nuclear attack submarines, in view of the huge Soviet merchant marine and large force of surface missile ships—all suitable targets in a naval war. As now programmed by the Department of Defense, the nuclear-powered attack submarine forces of the U. S. Navy eventually will consist of 69 submarines.[14] Nine of these nuclear submarines will not be of first-class attack submarine design. Mr. McNamara said in his last defense posture statement: "We expect to increase the force to a total of 60 'first-class' SSN's."[15]

The rationale for this arbitrary number (which won't be reached

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12. Fiscal Year 1969 Navy Budget-Posture Statement Highlights distributed by the Navy Department.
13. Senator Pastore, on June 21, 1968, released a censored version of closed hearings on "Nuclear Submarines of Advanced Design."
14. Report No. 1645 of the U. S. House of Representatives, printed July 5, 1968.
15. *Posture Statement,* January 1, 1968.

until 1973) has never been publicly stated. It is undisputed, however, that the Soviets have more than twice as many attack submarines as the United States and that the majority are of much more recent construction.

By holding down the nuclear attack submarine forces (only 33 nuclear-powered submarines at present), defense policy-planners in effect are requiring the U. S. Navy to cover fewer patrol stations, thereby exposing the United States to considerable danger. The limitation in numbers also rules out submarines being assigned to special missions of vital importance to the country. Finally, the limitation does not take into account possible submarine loss by enemy action or accident.

The failure to strengthen the nuclear attack submarine force in sufficient numbers is critical, since about half the U. S. Navy's anti-submarine warfare capability rests in the attack subs.

The Soviets treat their submarine force as a matter of prime national importance. U. S. programming for undersea strength fails to reflect a corresponding concern with the opportunities and dangers of submarine warfare. If the U. S. fails to initiate new submarine construction programs, the Soviets may have assured undersea supremacy by the mid-1970's.

SECTION III. SURFACE FORCES

A. Soviet Surface Forces

The Soviet naval threat is not exclusively submarine in character. The U.S.S.R. is striving for excellence in many areas of naval warfare and in other types of warships and support vessels.

For a number of years after World War II, the Soviet Navy consisted of a miscellaneous collection of obsolescent Soviet-built warships and former Axis vessels turned over to the U.S.S.R. Because of the poor quality of the ships, the Soviet Navy was not regarded as a viable naval force. Technological progress was almost non-existent in the Soviet fleet.

The new Soviet Navy, which displays both technical excellence and professional zeal, has been developed and expanded under the vigorous leadership of Admiral Gorshkov, who took command of Soviet naval forces in 1956 at age 46. Under the supervision of Admiral Nikolai Isachenkov, deputy for shipbuilding and armaments development, new classes of surface ships were created that the Soviet naval command believes will revolutionize naval warfare in the future.

Admiral Isachenkov joined guided-missile systems to surface ships of different sizes and with different missions.[16] After experimenting with guided-missiles on the older "Sverdlov" class cruisers, Soviet naval designers came up with the new "Kresta" class guided-missile light cruiser which has surface-to-surface and surface-to-air missile systems, as well as conventional guns. The first "Kresta" class cruiser was launched in 1965. Five are now operational or undergoing trials. These missile warships, or rocket cruisers as they are termed by the Soviets, are equipped with missiles having a 450-mile range.

Examination of Soviet publications indicates that the operational task groups of the Soviet Navy in the future will consist of "Kresta" class cruisers and "Kynda" class destroyers that also are equipped with surface-to-surface and surface-to-air missiles. The Soviets apparently believe that these groups of missile ships could effectively challenge U. S. aircraft carrier oriented task groups in the Mediterranean or on other waters on the globe. In a recent statement, Admiral Gorshkov said:

> "Now we have an oceanic fleet that can challenge the enemy in the open seas of the world. Our navy must be able to destroy enemy targets on land. Inland targets are often more important than marine targets. For this purpose, the guided-missile-

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16. Memorandum from Dr. Victor Fediay, Library of Congress.

equipped submarines and surface ships and rocket-equipped aircraft of naval aviation must be on constant alert in different parts of the globe."[17]

The new Soviet concept of naval power also is illustrated in this statement from *Soviet Rocket Troops* (Military Publishing House, Moscow, 1967): "The ground troops and fleet can mutually support each other with 'rocket fire' at a distance which is very significant and incomparable with anything in the past."

Other types of missile ships include the short-range guided-missile patrol boats of the "Osa" and "Komar" classes. These powerful and interesting new naval craft, of which the U.S.S.R. has approximately 150, represent a remarkably economical maritime striking weapon. The newer "Osa" boats displace 200 tons and are 131 feet overall. They have four large hood-type missile launchers for the Styx missile.

As their names indicate—"Komar" means mosquito and "Osa" means wasp—the tactical intention, we judge, is to use them in a surface wolf pack operation.

Never before has so much power been packed into so small a craft. They are the true pocket battleships of the missile era. Moreover, these boats introduce into Soviet naval forces short-range rocket capabilities in a manner comparable to the introduction by the Soviets of intermediate-range ballistic missiles into their system poised against NATO. They have a capability for striking severe blows against Western forces in the Mediterranean, for example, thereby upsetting the strategic equation in that vital theater.

Assignment by the Soviets of "Osa" and "Komar" boats to Egypt, for instance, is another disturbing development. In trying to gain control of the seas, the Soviets obviously intend to utilize the "pinprick" navies of satellites and client states. The *Revue de la Defence Nationale*, commenting on the sinking of the Israeli destroyer Elath by a "Komar" boat, said of this type of craft:

> "The threat is far from being negligible for our naval forces as well as for those of our allies with responsibilities in the Mediterranean."[18]

The "Komar" and "Osa" boats in the Mediterranean exemplify the technological breakthrough that Soviet naval forces have achieved. Commander Pierre Lauru of the French Navy observed that the sinking of

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17. Ibid.
18. Commander Pierre Lauru, *Revue de la Defence Nationale* (Paris), January, 1968.

the Elath by Egyptian surface-to-surface Styx missiles aboard two "Komar" type craft marked "a turning point in warfare between surface ships."

This was the first time that a warship was sunk by surface-to-surface missiles fired from another vessel. It was also the first time that a modern warship was destroyed by a vessel of a smaller tonnage using a weapon other than a torpedo. The seriousness of the Styx missile problem is evident in that no surface-to-surface missile system with an adequate range is in general service in the U. S. Navy or the navies of allied countries. The Sixth Fleet in the Mediterranean—and naval forces operating in other global regions where "Komar" or "Osa" boats are operational—must drastically alter operating procedures. They cannot be assigned to positions remote from aircraft carriers, for air cover is the only protection in view of the absence of counter weapons on surface ships. This means an overall restriction of fleet movements and an infinitely greater need for close surveillance of fast patrol boats in the hands of "pinprick" navies. Moreover, the U. S. has to consider the possibility that the missile boats have a nuclear capability. The state of the art in surface missilery does not preclude such a possibility.

The Soviet Navy is by no means an unconventional navy, exclusively equipped with exotic types of vessels. There are escorts, coastal minesweepers and an efficient fleet train of specialized ships, including nuclear submarine support ships, fleet service and supply vessels and ocean-going tugs—the types needed by a large, balanced fleet. In addition, there are many oceanographic vessels, minecraft, icebreakers and electronic intelligence-gathering ships.

The broadscale character of the Soviet naval build-up can be discerned from support ship construction. In the last few years, the Soviets have built six modern ships for missile supply and maintenance of nuclear-powered submarines. The "Ugra" class vessels, for example, were built for serving nuclear-powered undersea craft.[19] They are equipped with a large derrick for handling missiles and torpedoes. The three ships of this class also have powerful radar and a landing platform for helicopters. The Soviets also have built the "Alligator" type landing ships of 4,000 tons that are the equivalent of modern U. S. LST landing craft. They can transport from 8 to 10 tanks as well as the new naval infantry created by the U.S.S.R.

The Soviet Navy's ability to carry out amphibious operations also has been strengthened by the construction of three helicopter assault

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19. *Jane's Fighting Ships,* 1967-1968 (Soviet section).

carriers.[20] These carriers also may serve in a command ship role in "over the beach" operations. These ships can handle 30 to 35 helicopters and are equipped with surface-to-air missiles. They will greatly enhance the Soviet Union's ability to intervene militarily in regions remote from Soviet air bases.

In addition to missile-equipped destroyers, the Soviet Navy also has a strong force of conventionally armed destroyers—the workhorses of any fleet—for defensive or offensive operations. These are modern vessels with good sea-keeping qualities and extensive anti-submarine and anti-aircraft armament.

In summary, the Soviet Union's surface naval force is the second largest in the world. It is oriented towards missile warfare at sea. In addition, there are many ships designed for support missions in coastal zones. While the Soviet Navy lacks a naval air arm such as the United States possesses, it has long-range, land-based reconnaissance planes that act as the eyes of the fleet, plus a global force of fishing vessels that are naval auxiliaries and that operate in an intelligence-gathering capacity. The Soviet Navy also has a strong capability in minelaying, a type of warfare in which the U.S.S.R. long has specialized.

Increased deployment of the Soviet Navy's surface fleet is assured. In this regard, the Soviets have the advantage of close cooperation with the navies of the Communist Bloc countries and a variety of revolutionary nations. Viewed overall, the Soviet surface fleet is a force of major magnitude that is destined to play an even larger role in the politico-military operations of the Soviet Union in the 1970's.

B. U. S. Surface Forces

While the United States has built many surface ships of advanced fighting ability in recent years, the amount of new construction seems inadequate to meet the overall naval needs of the country. Two factors have to be considered: 1) much of the existing fleet was built during World War II and is nearing the end of its useful life and 2) the commitments of the United States entail U. S. naval operations on a global basis.

Two-thirds of the active U. S. fleet were built *more than 20 years ago.*[21] Even with costly overhauls and rebuilding, the life expectancy of these vessels is not great. Because of the complexity of new sea warfare

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20. *The New York Times,* Feb. 14, 1968.

21. John T. Gilbride, President, Todd Shipyards Corp., speech in New York City, June, 1968.

systems, involving demands for complicated electronics, the old seagoing platforms are ill-fitted for modification. It is not economical to load aging hulls with expensive new equipment. The problem of age faced by the U. S. Navy is in marked contrast to the situation in the Soviet Navy where only 10 percent of the warships are over 20 years old.

The country would not have cause for serious concern if adequate replacement programs had been authorized, but these have not been approved despite a decade of warnings about the danger of "bloc obsolescence." These warnings are based on solid fact. Of the 177 conventional destroyers in the fleet, 163 are of World War II vintage. Of the 16 attack carriers in commission, 7 are of wartime construction. All 9 antisubmarine warfare carriers date from the same period.

In his final posture statement, Mr. McNamara said that even by the mid-1970's only one-half of the ships in the Atlantic Fleet amphibious force will be modern, 20-knot ships.[22] Mr. McNamara's program for attack carriers showed that in 1972 the United States would have the same number of carriers as today and three of them would be of World War II construction.

The number of new ships authorized has to be viewed in the perspective afforded by America's growing military commitments and the loss of overseas bases. In 1953, the United States had the rights to use 551 major overseas bases.[23] By 1966, our total bases numbered 179. Many base rights have been lost because of changing political situations. The likelihood is for a continuing contraction of base rights, with a resulting increased demand on naval forces including carrier-based aviation.

Reference already has been made to the need for American sea power in the Indian Ocean. Indeed, throughout the Southern Hemisphere, there is a developing need for mobile sea-air forces with a role of protecting friends and allies of the United States. The expanding commitments for the 1970's cannot be met with naval forces created for commitments of the 1940's and 1950's. Yet, the 1969 defense budget statement envisions no overall increase in aircraft carriers between now and 1972 and looks to a total of only four nuclear-powered carriers in the future. In the same statement, Mr. McNamara also noted that the number of carrier aircraft had been reduced. These statements indicate

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22. *Posture Statement,* January 1, 1968. p. 129.

23. From an address by Admiral Thomas H. Moorer to the National Security Industrial Association, September 28, 1967.

a failure to appreciate the continuing need for a vital component of surface naval forces.[24]

Although the Soviets are pushing with great vigor to attain superiority in many areas of sea warfare, they have not thus far seen fit to develop the mobile air power for strike operations afforded by attack carriers. Their reasons for this are not clear in the light of the tremendous role that carrier-based aircraft are playing in the Vietnam war. Carriers will continue to play this role in future military confrontations over the sea, beach and inland areas anywhere in the world where adequate air bases do not exist. The United States must not falter in maintaining the presently unique advantage she holds in aircraft carriers.

For 20 years, the United States has relied on the reserve fleet in times of national emergency. But the day of taking ships out of mothballs is drawing to an end. Vintage fire support ships, including one battleship, have been reactivated for Vietnam duty, but the military crises of the next decade will require the employment of new vessels, not naval antiques.

Fortunately, the United States has moved ahead in the area of riverine warfare, coastal patrol and interdiction. Inshore and river warfare, an almost forgotton form of naval combat, has been relearned by the U. S. Navy and several types of efficient shallow water vessels have been developed for this type of combat. Entirely new concepts have been developed, such as the coordination of riverine craft with rocket-armed naval helicopters—some of them operating from helopads on landing craft in the rivers of Vietnam. These new methods and equipment have broadened considerably the ability of the United States to fight "brushfire" wars in backward lands where the waterways are the only means of communication.

Another area in which the U. S. may make major strides is in naval ordnance. The Vietnam war has resulted in a new appreciation of the importance of naval gunfire. General Leonard F. Chapman Jr., USMC, Commandant of the U. S. Marine Corps, has stated:

> "We place primary reliance on it (naval gunfire) . . . Some 500,000 rounds of naval gunfire ammunition were fired in support of the Marines in the last calendar year, 1967, from cruisers, destroyers and rocket ships."[25]

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24. *Posture Statement,* January 1, 1968. p. 119.

25. General Leonard F. Chapman Jr., Commandant of the U. S. Marine Corps, in testimony before Congress. Quoted in *Navy,* June, 1968.

Improvement in naval guns is now an important challenge. The public is not generally aware of the possibilities of gun development. The application of modern technology to conventional naval ordnance already has resulted in shells that can be fired 30 percent farther than customary ranges.[26] Rocket-assisted projectiles (RAP) or fin-stabilized shells are proving their worth in Vietnam. With RAP, five-inch guns mounted on a destroyer can outdistance the eight-inch guns mounted on a cruiser. This is only the beginning. Ordnance specialists see the possibility of a RAP shell being fired more than 100 miles from 16-inch guns like those aboard the battleship New Jersey. If naval guns had a range of 100 miles, warfare at sea would undergo drastic change. Thus the first country to make the complete shift to RAP naval ordnance will have a significant edge over other naval powers.

An area of special concern, however, is the lag in development of surface-to-surface missiles for the U. S. Navy. Until recently, the U. S. lacked surface-to-surface missiles specifically designed to deal with weapons such as the Soviet Styx missiles that sunk the Israeli destroyer Elath. In February, announcement was made that a defensive missile, the Sea Sparrow, has been installed aboard the nuclear carrier Enterprise.[27] The Sea Sparrow system will pick up hostile planes or missiles at a range of 10 to 15 miles. The missiles are fired when the target is eight miles away. They travel at four times the speed of sound, whereas the Styx missiles are subsonic. The Sea Sparrow system is scheduled for installation aboard U. S. destroyers as protection against Soviet anti-ship missiles.

Another area of concern is nuclear-powered surface ships. The U. S. has only four such vessels—the carrier Enterprise, the cruiser Long Beach, and the frigates Bainbridge and Truxton.

In the late 1950's, when the United States developed nuclear power for warships, it was in a position to move ahead rapidly with nuclearization of the American surface fleet and to score a colossal advance on the Soviets. Unfortunately, former Secretary of Defense Robert S. McNamara opposed nuclear power for the U. S. surface fleet. He resisted efforts to complete the propulsion revolution in the fleet, and the naval posture of the United States suffered accordingly. Years were lost—years in which the U. S. could have moved far ahead of the U.S.S.R. in naval forces.

The value of nuclear-powered surface ships has been proven in op-

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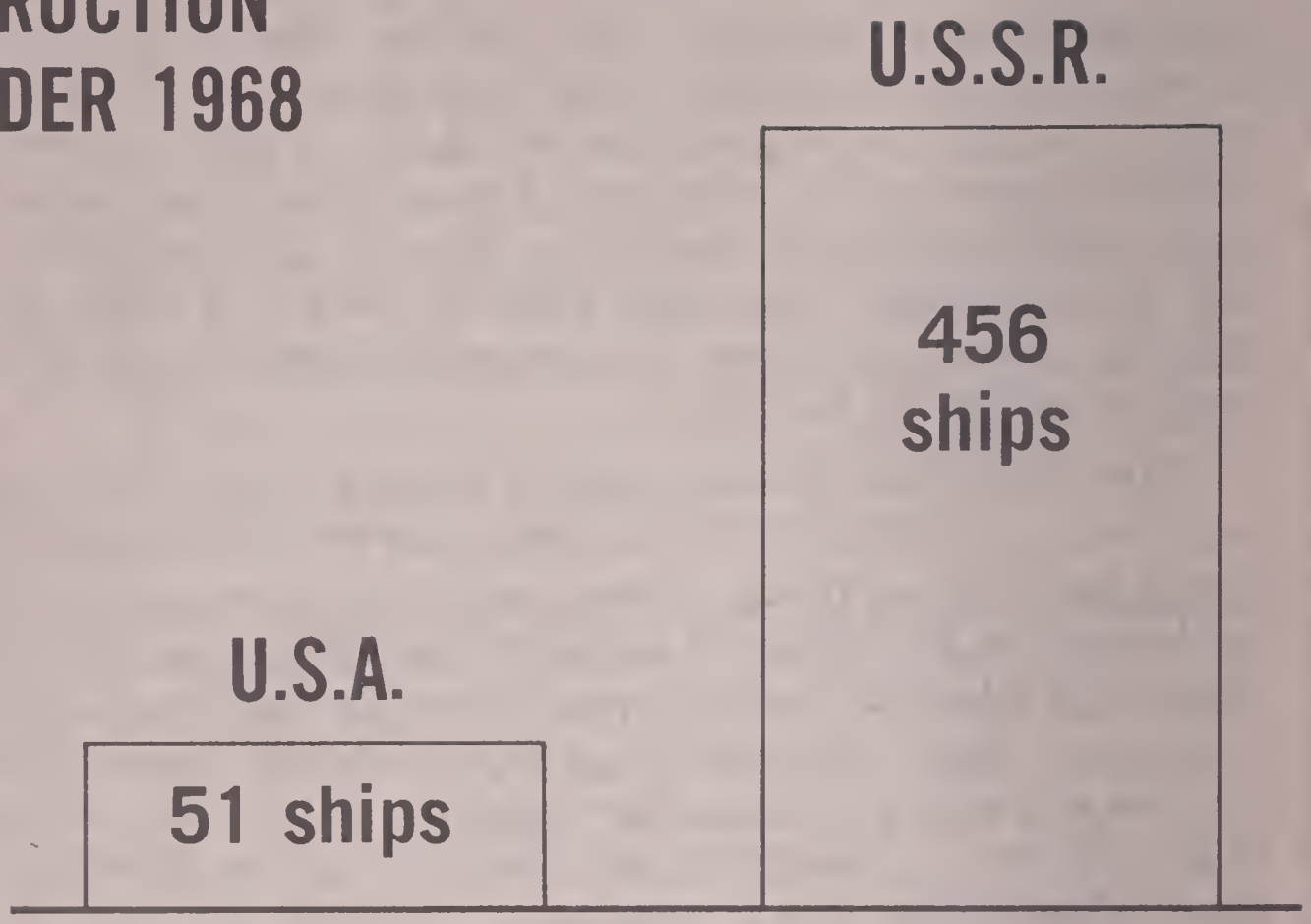
26. Robert D. Heinl Jr., *Navy,* August, 1967. p. 11.

27. Fiscal Year 1969 Navy Budget-Posture Statement Highlights. pp. 1 and 7.

erations off Vietnam. In the case of conventionally-powered warships, strategic mobility is limited by the need for refueling at sea. Enemy action, bad weather and other factors can inhibit refueling, which is time-consuming at best and which requires time off station as well as the services of a considerable fleet train of tankers. With nuclear fuel, there is no need to refuel. Ships no longer are tied to bases or tanker support. Moreover, the ships can operate almost continuously at high speed, enabling them to undertake more complex missions. A nuclear task force can gain the nation valuable time in a crisis. It is in the national interest, therefore, that more nuclear-powered ships be constructed for the U. S. Navy.

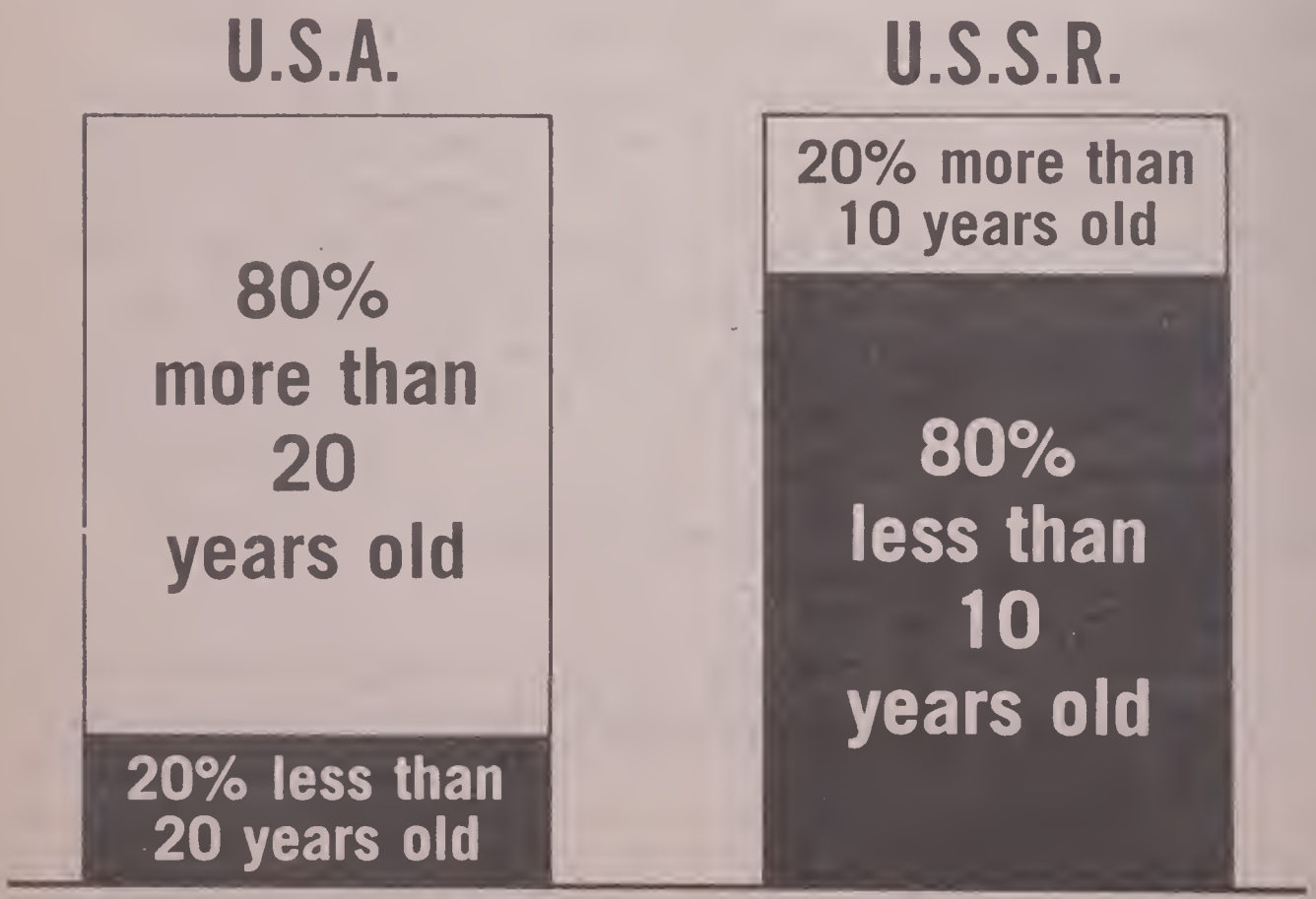
The United States has powerful surface forces and sophisticated naval weapons systems. But the number of new ships authorized seems insufficient to meet future commitments. Moreover, greater effort must be devoted to exploiting all available technologies so that the United States will retain its favorable position on the high seas. To this end, it is timely to reduce emphasis on a rigid cost-effectiveness formula that elevates accounting factors above security factors. The need is for the United States to concentrate on whatever combat advantages may be gained from a new ship or weapon.

NEW MERCHANT FLEET CONSTRUCTION ON ORDER 1968



These figures and the figures on the previous page show the USSR merchant fleet as new and growing and the US merchant fleet as overage and contracting.

AGE OF MERCHANT FLEET



SECTION IV. MERCHANT MARINE

As the Soviet Union's merchant marine expands, it serves to enhance the U.S.S.R.'s attainment of strategic objectives on the oceans. The expansion is a major development in the history of our times.

In 1950, the Soviet Union's merchant navy ranked 21st among such fleets. By 1966, it ranked fifth. And by 1970, it is expected that the Soviets will have 12 million tons of shipping, as against 1.9 million in 1950.[28]

Today, the U.S.S.R. has approximately 1,400 ships of 10.4 million tons. The U. S. has fewer than 1,100 ships aggregating 14.8 million tons. Between 1950 and 1966, the U. S. active merchant fleet contracted from 1,900 ships totaling 22 million tons. Moreover, of all the merchant shipping on order throughout the world, 24 percent (456 vessels) are for the Soviets, whereas the U. S. has only 51 merchant ships on order.

The Soviet merchant fleet is as distinctive qualitatively as it is quantitatively. Four out of five Russian merchant ships are less than 10 years old, whereas four out of five of the U.S.-flag vessels are of World War II vintage or older!

The huge expansion of their merchant fleet gives the Russians a powerful new weapon in the Cold War. It is a weapon that has military, economic and political effectiveness.

The Russians fully understand the importance and potential of the merchant fleet they have created. Victor G. Bakayev, the Soviet Minister of Merchant Marine, has said in *Red Star:*

> "The fleet has been joined by hundreds of new and improved vessels of various types . . . The creation of a Soviet merchant marine has made it possible to free the nation from dependence on foreign vessels for maritime shipping. Today the Soviet Union can deliver any cargo to any point on earth, using high-speed Soviet ships."[29]

Evidence supporting Minister Bakayev's assertion may be found in the record of the number of Soviet ships transporting war material to North Vietnam between 1964 and 1967. In 1964, 47 Soviet merchant vessels reached North Vietnam; in 1965, 79; in 1966, 122, and in 1967 the number of Soviet ships in the military sealift reached the record of 433—evidence of a major cargo capability.

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28. Victor G. Bakayev, "The Growing Soviet Merchant Marine," *Red Star,* March 13, 1966.
29. Ibid.

The Soviets are not only setting records on cargo movement, but they are also creating strong passenger services. Whereas in the late 1940's, the U.S.S.R. had only a few old passenger vessels, today it has passenger service on 150 regular routes totaling more than 120,000 miles. The ships on these routes generally are less than 10 years old. N. Malakov, writing in *Vodnyy Transport* (1966), asserted that "the Soviet sea fleet takes third place in the world by a number of accommodations."[30] At any rate, the Soviets have 170 passenger-carrying vessels with a total tonnage of approximately 500,000. Indicative of the new Soviet ambitions at sea is the new service between Montreal and Leningrad, utilizing the 750-passenger vessel, Alexander Pushkin.

One of the U.S.S.R.'s ultimate goals is domination of world trade. To this end, it is pushing ahead with all types of ship construction and improvements in maritime facilities. The Soviet fishing fleet clearly reveals the U.S.S.R.'s goal of domination at sea. Since 1954, for example, the Soviet Union has invested $4 billion in its fishing fleet and fishing industries' facilities ashore. Whereas American trawler owners are hard-pressed to find funds to build or modernize trawlers, the Soviets have constructed many trawlers costing more than $2 million each. The investment is worthwhile, for in 1964—the last year for which figures are available—the U.S.S.R. landed 5.4 million metric tons of fish in ports of the Soviet Union.[31] This was almost twice the U. S. catch. And the Soviets have set a goal of 8.5 million metric tons for 1970.

In the late 1950's, when the U.S.S.R. was beginning its big build-up at sea, it relied heavily on the shipyards of Eastern and Central Europe. This capacity is still being used. In 1965, for instance, four East German shipyards constructed 55 vessels for the Russians. But today the Russians themselves are constructing large numbers of ships of different types, including tankers and icebreakers. The Soviets have pioneered in development of the nuclear-powered icebreakers, Lenin and Arktika. Another new Soviet icebreaker (this one built in Finland) is the Kiev, a vessel with a displacement of 15,000 tons. The icebreaker is diesel-electric powered and has three screws. Three more icebreakers of this type are under construction in Finland.

The merchant navy which the U.S.S.R. has built enables Moscow to expand Russian foreign trade enormously. In 1952, Soviet foreign trade amounted to only 4.7 million rubles. By 1963, this trade totaled 13 billion rubles, and the regime has set a 1980 goal of 52 billion rubles.

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30. *Vodnyy Transport,* August 11, 1966. p. 4.

31. *New York Times,* May 8, 1966.

While building new ships at home and buying others abroad, the Soviets also have been vigorous in developing and strengthening port facilities. At Il'ichevsk, for example, the Soviets have constructed a major new Black Sea oil port. The piers can accommodate tankers of 100,000 tons. In 1966, the Soviet government also announced that it planned to expand the capacity of ports 40 percent by 1970.

Much public attention has been devoted to Russian shipments of missiles to North Vietnam, but scant coverage has been given to the manner in which missiles and other war material are delivered. It is the Soviet merchant marine that does much of the job.

The Applied Physics Laboratory of the University of Washington at Seattle is one of the few organizations that has analyzed the Soviet sealift in detail.[32] "Because of the shallow draft in the North Vietnamese ports," said the university report, "only fairly small Russian ships have been used. Most of the ships are dry cargo ships ranging from 3,000 to 11,000 gross tons and sailing mainly from Odessa. The Soviet Union is supplying all types of cargo with its merchant fleet. Such equipment includes coal, fertilizer, sulphates, oil, marine engines, machine tools, dump trucks and lifting cranes of up to 16 tons capacity." It is no wonder, therefore, that the stream of Soviet merchant ships has been the decisive factor in the reinforcement and strengthening of North Vietnam.

A vital factor in the Russian merchant marine expansion is the total of national resources devoted to this oceanic enterprise. In 1965, the Soviet government devoted more than $600 million to the construction of merchant vessels. The United States spent only $150 million in the same year. These figures make clear the different priorities that the Soviet Union and the United States assign to a vital segment of sea power.

Viewed overall, the observer of the Soviet merchant fleet finds a tremendous reversal of role and ambition. The free world countries grew strong and stayed free through control of the seas, including leadership in global commerce. The Soviet Union, however, is being allowed to move into the position of maritime supremacy that hitherto has belonged to the sea-voyaging free nations of the West.

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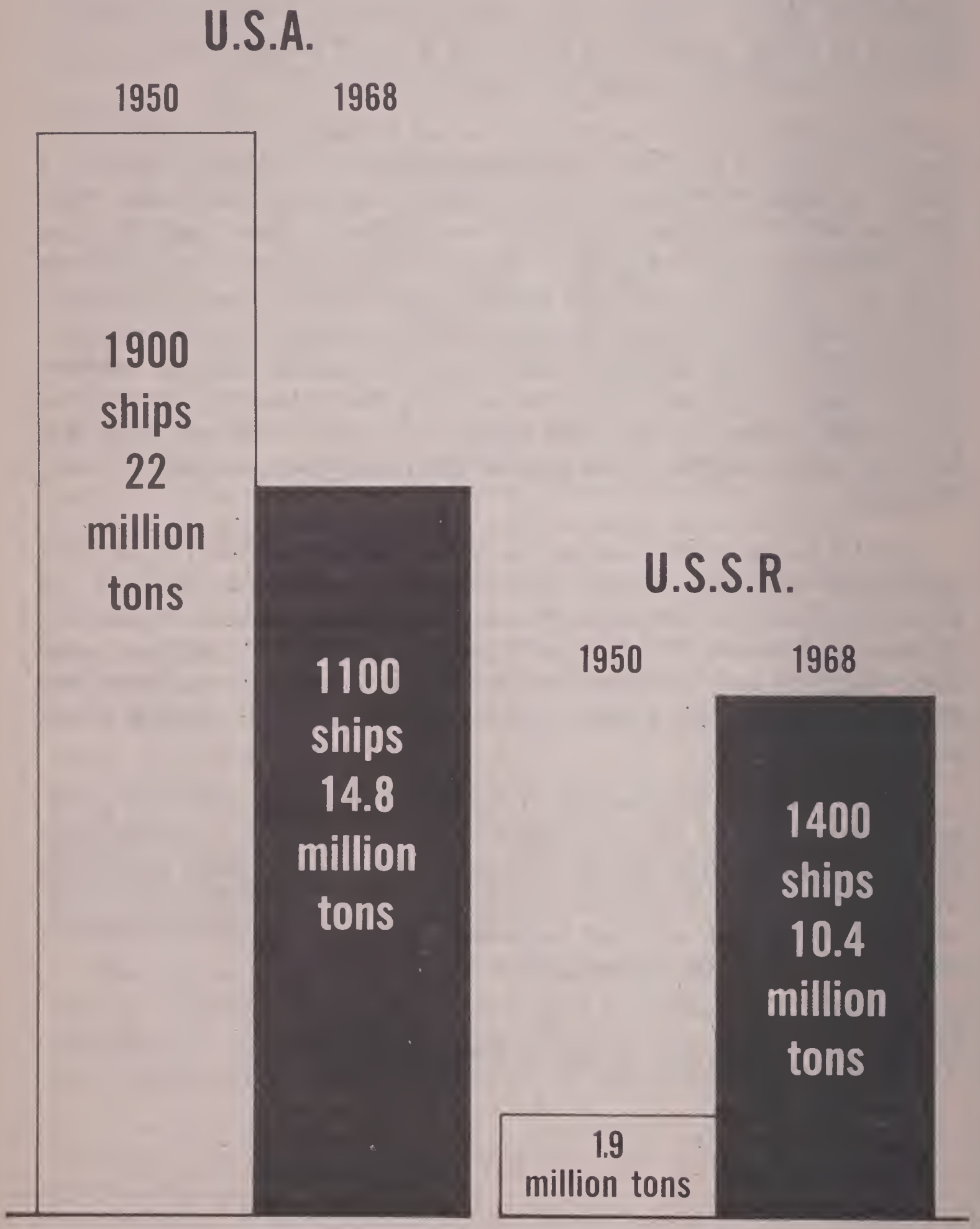
32. Raymond Moley report for *Los Angeles Times,* 1968.

CHANGES IN U.S.A. AND U.S.S.R. MERCHANT FLEE



SECTION V. NEW SOVIET DEPLOYMENTS

Today, when Soviet submarines, surface warships and naval auxiliaries crowd the seas, and the U.S.S.R.'s naval forces are second in numbers to the United States, the purpose of the continuing build-up of Communist sea power should be of deep concern to the American people. What counts, in the last analysis, is not the number of ships the Russians have today or the character of their naval hardware, but their purpose in creating a powerful ocean fleet.

The heavy Soviet commitment to the various forms of sea power—from offensive mining to seaborne missile forces—clearly indicates that the authorities in Moscow have a considered doctrine of sea power. They know what they want to achieve with ships at sea and how they will go about attaining their objective. The evidence is at hand that the Russians, once completely land-oriented, have learned to think in terms of naval strategy. The Soviets are building a surface fleet and not simply for the sake of having a symbol of national power. The huge naval construction program is related to specific goals—in particular, to the basic Communist goal of world domination.

Specialists on Mediterranean and North African affairs have cited the impact of the Soviet build-up in that part of the world. Four years ago there were no more than three or four Soviet naval vessels in the Mediterranean. By January 1967, there were 10 or 12. Now there are approximately 40. When this force was at its peak, it included a 15,000-ton guided-missile cruiser with 12 six-inch guns, three other heavy cruisers, five to seven missile-equipped destroyers of the 4,300-ton Kynda and smaller Kotlin class, 10 conventional and two nuclear-powered submarines, 12 to 15 modern supply ships serving as floating bases in protected anchorages, and amphibious landing craft.

The presence of a Soviet squadron already has had a powerful impact on the thinking of the Mediterranean peoples. Admiral Sir John Hamilton, former Commander-in-Chief, Allied Forces Mediterranean, has discussed in *NATO Letter* the signifcance of this Soviet force.

> "By maintaining an offshore military presence," he explained, "their fleet gives support to their economic and military aid programmes in Egypt, Algeria and Syria. I suggest that it is no longer possible to keep military and political considerations in separate, watertight compartments. . . . It is men's minds that we are trying to win. And whatever may be the military assessment of the significance of the Soviet fleet in the Mediterranean, I can assure you . . . that the presence of this fleet is having a profound effect on men's minds. In this respect, it is contributing

significantly to the rise of Soviet influence in the Mediterranean area."

Almost 200 years ago, in a war with Turkey, Imperial Russia sent its first fleet into the Mediterranean and won an impressive naval victory. In 1799, they occupied Corfu and the Ionian Islands, and sought to gain control of Malta. Those were isolated episodes involving a Russian presence in the Mediterranean.[33] When the Chief-of-Staff of the Soviet Black Sea fleet acted as a task force commander in the Mediterranean in 1966 for joint exercises with the Egyptian Navy, he announced that the Soviet naval presence would be "permanent." Underlining his statement is the fact that Soviet Navy ship-days (one ship operating one day) have increased over 600 percent in the last three years.

With a powerful squadron in the Mediterranean, the Russians are in a position to influence a number of nations, many of which are weak and unstable. It is possible for the Soviets to support Egypt and Syria directly, to threaten oil shipments to Western Europe, to intervene in any new civil war that may take place in Greece, and to expose Turkey to pressure from another side. These are only a few of the possibilities open to the Soviet Union now that it has warships to implement its desires. The Soviets also will be able to engage in brinkmanship when Libya, governed by the aging King Idris, faces a crisis of succession. Morocco, at the western gate to the Mediterranean, may face trouble from Russian naval forces in the event that Algeria resumes its pressure on the Moroccan frontier. Even Spain suddenly has cause for concern regarding Spanish Sahara.

Furthermore, as the Soviet task force in the Mediterranean is built up, the U. S. Sixth Fleet becomes a less credible deterrent. Already an era has ended--a 20-year period in which the Mediterranean was virtually an American lake. Removal of the American naval presence from the Mediterranean is a prime Soviet objective. This can be discerned in the commentaries that appear in Soviet journals. In August, 1967, *International Affairs* (Moscow) asserted: "The return home of the 'floating gendarme' (the Sixth Fleet) would surely improve the international situation in the Mediterranean, and to a large extent facilitate the solution of the entire complex of contemporary problems of peace and security in Europe". In other words, withdrawal of the Sixth Fleet would turn the Mediterranean into another Black Sea or Caspian—a closed sea of the Communist empire.

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33. From an address by Admiral Charles D. Griffin, USN, at Madrid, Spain, November 1, 1967.

Few people in the U. S. appreciate the fact that the Soviets already have an operational infrastructure which could give them control of the Red Sea and the Arabian Sea, should they ever decide to use the facilities they have developed. These include facilities in Egypt, the Yemen, Sudan and Somalia.[34]

The threat posed by the Soviet Pacific Fleet also should be spotlighted. The Soviet Pacific Fleet, with deep water capabilities, is equipped and trained to exercise influence not only in the Western and Northern Pacific but also in the Indian Ocean as well. The United States also must be alert to the possibility of the Soviets obtaining naval base rights in the Pacific. The Soviet Pacific coast ports are severely handicapped by fog in spring and fall and by ice in winter. If the vast Pacific world is "balkanized," and small islands seek national status, the opportunities for the U.S.S.R. will increase sharply.

There is nothing covert about the Soviet activity at sea. Admiral Gorshkov, the head of the Soviet Navy, has declared:

> "In the past our ships and naval aviation units have operated primarily near our coast, concerned mainly with operations and tactical coordination with ground troops. Now, we must be prepared for broad offensive operations against sea and ground troops of the imperialists *on any point* of the world's oceans and adjacent territories."[35]

An indication of the Soviet sea power design East of Suez was Admiral Gorshkov's visit to India in February of 1968. Russia and India are fashioning military ties, and the Soviet Admiral used the occasion of his visit to seek refueling and repair rights for Russian warships at Indian ports. The U.S.S.R. already has gained a foothold in the Indian naval establishment by providing four submarines. The initial demonstration of Soviet sea power in the Indian Ocean drew to an end in June, 1968 after the Soviet Pacific Fleet cruiser Dmitri Pozharsky and anti-submarine escort ship Steregushchy visited ports in India, Somalia, Iraq and Iran. A spokesman for the Soviet fleet, Vice Admiral Alexeyev, took the occasion of the Indian Ocean cruise to announce the forthcoming Red naval visit to Algeria, Chile, Japan, Syria, Egypt, Yugoslavia and Uruguay.[36]

The Indian Ocean presents a broad spectrum of opportunities for

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34. Noel Mostert, *The Reporter,* March 7, 1968. p. 17.
35. Quoted in *Ogonek* (Moscow) on 50th Anniversary of the Soviet Fleet.
36. *Chicago Tribune,* June 14, 1968.

the use of naval power to achieve political goals.[37] Bordering the Indian Ocean are a number of nations that are potential targets of Soviet aggression. The aggressor state has the advantage, in that many of the countries around the rim of the Indian Ocean are in ferment. The East African countries, for example, are vulnerable to Soviet politico-military pressure and to subversion. If the U.S.S.R. deploys a strong naval squadron in the Indian Ocean, including helicopter carriers and naval infantry, the options available to the Soviets will multiply unless there is a powerful free world countering force.

For example, the U. S. public should understand that the Soviets are using their massive military aid to India as a wedge to obtain naval bases in the Andaman and Nicobar Islands. These islands command the eastern approaches to the Indian Ocean. As they are in easy striking distance of Malaysia and Indonesia, they will be of high strategic value to the Soviet Union.

The Soviet Union's future status as a naval power in the Indian Ocean is taken for granted by Indian observers. It is significant that a writer for *Indian Express* of Bombay recently noted that the "arrival of the Soviet Navy means that for the first time since Vasco de Gama, Western naval supremacy is faced with a serious challenge."[38] He added that "on the western flank of India, the Soviet Navy's appearance will have incalculable effect on the Persian Gulf. Already, the Russians have made it plain that after the British withdrawal from the area, they do not want the American Navy to take it over." Clearly, while the Soviets have made only a small beginning in the Indian Ocean, they have achieved a considerable gain in psychological terms. South Asians view the Soviet Navy as an important factor in their future.

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37. Philip K. Crowe, former U. S. Ambassador to Ceylon, *The New York Times,* May 26, 1968.
38. Dev Murarka, *The Indian Express* (Bombay), June 26, 1968.

SECTION VI. SOVIET HARASSMENT TACTICS

At the same time that the Soviets are sailing into new waters and providing naval weapons to associated states, they are trying rough stuff in ship-handling in an effort to intimidate U. S. fleet commanders to pull-back their vessels. From the Mediterranean to the Sea of Japan, the Russians have engaged in obstructive maneuvers. They have cut into formations and steared on collision courses.

The Soviets have made a calculated effort to inhibit U.S. naval forces and to gain psychological advantage over U.S. units.

This Soviet maritime version of its old tactics of aerial "buzzing" has to be understood as part of the U.S.S.R.'s overall maritime strategy. The Soviets not only are building a giant merchant marine and creating a powerful navy, but they also want to induce in the mind of the West the idea that the U.S.S.R. is the boldest power on the high seas.

Soviet spokesmen, while ignoring the U.S.S.R.'s harassment of American warships, have accused the United States of engaging in such activities. For example, a writer for *Red Star* wrote with indignation that a U. S. vessel and patrol aircraft in the Mediterranean dazzled the "bridge (of a Soviet ship) with searchlights and then dropped flares."

To those free world countries that border on the oceans, the naval forces of the United States stand for security. The Soviets clearly aim to undermine this image of the American fleets and to substitute in the minds of these states a fear of Soviet sea power. If the value of American naval forces is to be upheld in situations short of war, appropriate retaliatory measures will have to be employed to deter the Soviets and to make clear to the watching world that the United States not only has the best ships but also the strongest resolve to deploy its sea power in politically advantageous fashion.

The Soviets have given much more thought to the political use of warships than is generally recognized by the U.S. public. The linking of military and political operations, characteristic of Soviet forces since the time of Lenin, is especially clear with respect to the U.S.S.R.'s naval units. Indicative of the Soviet approach to harassment operations at sea is this statement by Rear Adm. B. F. Petrov, writing in the Polish *Naval Survey:*

> "Under modern conditions we cannot limit the forms of combat operations exclusively to battle, that is to call each combat contact a battle."

The dangerous Soviet maneuvers in the Mediterranean and elsewhere are properly described as combat contacts. The Soviet objective is the expulsion of the U.S. Sixth Fleet from the Mediterranean Sea. Indeed,

the Soviet government has resented American naval influence even in pre-Bolshevik times. Thus, the Imperial Russian charge d'affaires in Turin, F. I. Tyutchev, reporting to St. Petersburg at the close of the 1830's, expressed anxiety over the increasing "penetration of the American fleet into the Mediterranean Sea."[39]

To be sure, the United States is not about to withdraw the naval power that protects Europe's southern flank and maritime access to the Middle East. Yet the new Soviet naval tactics make clear that protecting the U.S. position in the Mediterranean will be vastly more difficult than in years past.

Though a number of countries on Europe's southern flank are exposed to naval pressure, it is not likely that the Soviets in the very near future will take direct naval measures against these states. It is reasonable to suppose that preliminary to any direct Soviet naval action against Greek, Turkish or Italian forces, for example, will be a campaign of what might be termed incident warfare aimed at the U.S. Sixth Fleet. Incident warfare at sea is just what the term indicates: calculated threatening moves designed to force one's opponent into a "chicken" posture.

The Soviets long have created incidents to test America's will in the Cold War. The U.S.S.R. has deployed tanks on highways, stopped trains to Berlin, dispatched jets to "buzz" the Federal German legislative body when it held sessions in free Berlin and otherwise engaged in incident warfare on land and in the air. It is only logical that the Soviets would turn to the same type of tactics on the high seas. And the United States will have to be as firm on the waters of the Mediterranean and elsewhere as it has been in the Berlin corridor.

The most successful example to date of "psy" war at sea is North Korea's hijacking of the electronic intelligence-gathering ship PUEBLO in January, 1968. The units of North Korea's "pinprick" navy, in effect acting as proxies of the Soviet Union, seized the lightly armed American vessel and thereby inflicted humiliation on the United States.

The Soviet Union, with 27,000 miles of coastline, has elaborated the theory of closed seas and historic bays to deny the right of innocent passage to free world warships—in violation of the 1958 Geneva Convention of the Territorial Sea.

It is true, of course, that no one ever owns an ocean; and only the Soviets, for all practical purposes, have closed a portion of a sea, as in

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39. *International Affairs* (Moscow), August, 1967.

the case of the Gulf of Finland. Yet the British for more than a century came as close to owning the Indian Ocean as one could imagine. The United States—from the defeat of Imperial Japan down to the emergence of a Soviet naval threat—was in a position of extraordinary naval dominance on many of the waters of this planet, particularly the Mediterranean Sea. Now the United States is engaged in a fresh contest for control of the seas. The Soviets are determined to overcome the accident of their geographical position by active naval intervention far from the Soviet heartland. They are making a massive financial and political investment in sea power. While Moscow's diplomats talk of a detente, Soviet warships have been given a pressure assignment that involves increasing the tensions between the two superpowers.

While the Mediterranean is the principal center of new Soviet naval operations, the Soviet Union's seapower goals are not limited to that strategic sea. For decades efforts have been made by the Soviet government to make the Baltic a "mare nostrum." By abandoning the Baltic after the elimination of the German Navy in 1945, the Western powers unfortunately made it easy for Stalin to further his plan of making the Baltic a Soviet sea. Indeed, the Russians over the years have sought to restrict freedom of navigation in the Baltic as well as to limit fishing and regulate aircraft movements in what they consider security areas.

The U.S.S.R.'s naval brinkmanship and long efforts to close certain sea areas to Western warships illustrates its daring and resourcefulness in attempting to end the historic freedom of the seas. Harassment at sea thus should be seen as another important gauge of the Soviet Union's determination to achieve total victory in oceanic space.

SECTION VII. U.S. AND SOVIET OCEAN STUDIES A COMPARISON

The Soviets have engaged in a crash program designed to give them supremacy in all areas of maritime power. For years, they have devoted major resources to oceanographic studies and to research in polar waters. These studies enhance the Soviet Navy's capability, especially in submarine operations in the Far North where they have an important supply route and which they regard as an interior zone for sea-based missile strikes against North America. Two hundred oceanographic vessels are assigned to applied and basic ocean research. Nine thousand scientists are utilized in a variety of oceanographic programs. The data gathered by these scientific vessels and workers, as well as by the worldwide fleet of trawlers and auxiliaries, is of direct value to the Soviet Navy in furtherence of its objectives.

The Soviets have a great advantage in the fact that all their ships at sea, whether nuclear submarines or ordinary fishing trawlers, are required to contribute to the country's overall oceanographic effort and operate under a centralized control. The aim of this effort extends from exploiting the richest fisheries of the world to gathering data useful for future naval operations.

The Soviets also have been in the ocean studies business in a more serious fashion for a longer time than the United States or its western allies. It is noteworthy that during the International Geophysical Year the Soviet oceanographic effort was double that of the United States.

Over the years, the Soviets have displayed special interest in two areas of oceanographic research: the Artic and Antarctic basins. Extensive amounts of information have been gathered by Soviet scientists on ice formations, currents, temperatures and ice drifts—all of which are highly important to submarine commanders operating in polar waters.

A notable feature of the Soviet oceanographic effort is the continuing construction of new scientific vessels. In 1966, for example, the Soviet government ordered nine 2,500-ton research vessels from Polish shipyards and two somewhat smaller ships from East Germany. These were designated for use by the Institute for Oceanography. In the previous year, the Marine Hydrographic Institute obtained a new research ship, the *Akademic Knipovich* equipped with 13 scientific laboratories and with a cruising range of 30,000 miles.

In comparison to the Soviet oceanography program, U. S. ocean studies reflect a lack of governmental concern. Indeed, oceanography has been described as a national stepchild. Whereas the United States

spends more than $4 billion a year for the space program, the total amount of money devoted to inner space—oceanic—research and development is less than the cost of building a single space vehicle.

The United States has 3,700 people engaged in ocean studies or only a little more than a third of the manpower the U.S.S.R. has assigned to this field of studies affecting national defense. The U. S. has 50 fewer ships engaged in oceanographic work and only 1,000 oceanographers as compared to the 1,500 in this profession in the Soviet Union. The Soviets have 12 schools of oceanography; the United States has one.

The United States is pioneering in the man-in-the-sea program and in its deep submergence program, but the overall support given to ocean studies is very limited. When ocean studies first received major governmental attention in 1963, President Kennedy proposed expenditure of $2 billion over a 10-year period to explore and develop ocean resources. In four years, the United States has spent less than one-sixth of that amount. Yet the economic importance of the ocean depths, let alone their military significance, is enormous. Already 16 percent of the world's oil is being taken from the ocean floor, and the percentage is increasing.

The U. S. public needs a greater awareness of the technological problems involved in constructing deep submergence combat vessels of the future. Because of the tremendous pressures below the 2,000-foot mark, the submersibles of the future may have to be of a new shape. Certainly, new materials, such as fiber glass, will be needed in new forms, and new modes of propulsion such as fuel cells will be required. Obviously, extensive research and development programs are necessary.

The record shows that the United States simply isn't devoting sufficient resources to the race for undersea knowledge. Our government's failure to move ahead with vigor in ocean studies gives the Soviet Union additional opportunity to effect our national burial at sea.

SECTION VIII. U.S. OCEANIC SUPREMACY THREATENED

What the Soviet Union's development as a naval power means is that the strategic naval balance is changing in the world—to the advantage of the U.S.S.R. Obviously, any change in the U.S.S.R.'s status as a naval power alters the overall balance of strategic forces.

At the time of the Cuban crisis, the Soviets had an immensely powerful ground army and a large rocket force, but they were still militarily handicapped because they lacked strategic mobility. The geographical position of the Soviet Union makes difficult the effective application of military forces. This was apparent during the Cuban crisis when the lack of a strong surface fleet seriously hindered the U.S.S.R. The Soviets realized that they were incapable of bringing their power fully to bear in remote regions because they lacked ships. Now, the situation is changing rapidly. The presence of a Soviet Squadron in the Mediterranean, for example, has produced a new power balance there.

The visit of Soviet warships to Iraq in the spring of 1968 apparently contributed to political change in that country. What's happening is that Soviet naval forces are gaining in visibility, and this has a political impact on weak states. Naval power also gives the U.S.S.R. a new capacity for surprise in its politico-military operations.

It is evident that the leaders of the Soviet Union have made a far-reaching decision to enormously increase the U.S.S.R.'s strategic mobility. They intend to exercise Soviet power not just in such natural and traditional preserves as the Black Sea and the Baltic Sea but thousands of miles from Soviet cities. The sustained growth of their naval forces indicates that within another five years the Soviets will have the capability for naval intervention in the most distant regions, including the landing of the newly activated force of black-bereted marines or naval infantry.[40]

The Soviets have comprehensive goals in developing their naval forces. The chief of the Soviet Navy has said—and the West would be foolish to discount his assertion—that his ships have long-range homing torpedoes and new types of conventional weapons with increased muzzle velocities, greater ranges, and improved accuracy, as well as new rocket-equipped aircraft, anti-submarine aircraft and helicopters that can "unpreventably" hit surface vessels and submarines.

About the time of the Cuban crisis, 15 leading Soviet military theo-

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40. *The Economist* (London), May 18, 1968. p. 20.

reticians, headed by Marshal Vasily Sokolovsky, prepared the volume *Military Strategy* that revealed the new direction of Soviet thinking with respect to sea warfare.[41] The volume constituted a major Soviet break with defensive concepts of sea warfare. The authors stated:

> "The world oceans will be the Navy's theater of military operations."

This statement is sufficient reply to those who persist in seeing Soviet naval forces as primarily defensive and deterrent in concept. The Soviet submarines operating in the Mediterranean could hardly be considered as guarding the homeland. Neither are the new amphibious ships designed for Russian coastal operations. They may find employment on the Horn of Africa, in the Persian Gulf or beyond. Furthermore, the existence of a fleet of 250 attack submarines and 100 missile-firing submarines in Communist hands is the most telling argument for the possibility of undersea conflict. The submarine, after all, is basically an offensive weapon, and the notion that the U.S.S.R. maintains a huge submarine force simply as a defensive measure against the United States is not convincing.

The United States also will have to bear in mind that as the Soviets augment their naval capabilities, the exercise of these capabilities is likely to become increasingly attractive. Naval forces provide another way to pursue the goals that are common to Marxist-Leninist political strategy and the traditional expansionism of historic Russia. Already, according to the Department of Defense, "the Soviets now operate (submarine) patrols within missile range of the U. S. shores." Add to this the statement of Dr. John S. Foster Jr., director of Defense Research and Engineering, that the "increasing activity indicates a significantly improved Soviet missile submarine operational capability," and the seriousness of the Soviet naval threat becomes crystal clear.

The United States must consider the full range of likely Soviet developments and operations of the next decade. Soviet emplacement of nuclear weapons on the seabed is one of these developments. A United Nations study recently pointed out that "nuclear-weapon powers might, it is thought, find it desirable to replace land-based missiles with seabed bases or silos."[42] The study added that satellite surveillance would be less effective against missile silos on the ocean floor and noted that

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41. *Military Strategy,* Edited by Marshal V. D. Sokolovsky, Frederick A. Praeger, 1963.
42. *The Military Uses of the Seabed and the Ocean Floor,* United National Report, August, 1968.

such undersea installations "might decrease the consequences to a nation and its population of a nuclear strike against a missile force."

If such installations are within the realm of possibility, as they most certainly are, then the United States must work towards naval systems for detecting and destroying such offensive bases on the seabed. At the same time, the United States must develop new undersea law concepts that would give it adequate security against the establishment of Soviet undersea bases within missile range of the United States.

The precise size of the naval forces the United States must develop to ensure American security and survival in the years ahead requires a determination that lies outside the scope of this report. But it should be noted that a key element in such naval forces is maintenance of a strong Marine Corps with the most advanced weapons and transportation systems for amphibious assaults, riverine warfare and sustained combat ashore.

The pace of Soviet oceanic enterprise is quickening. A decade ago, few Americans even considered the possibility that the Soviet Union would become a major sea power. U. S. control of the seas seemed beyond dispute. Five years ago, no one expected the Soviets to progress in submarine design and construction at a very rapid rate. But now Soviet missile submarines patrol off our coast. The Soviet submarine construction rate far exceeds what was anticipated a few years ago. When the United States had overwhelming superiority in nuclear weapons, the Soviets bided their time insofar as naval operations were concerned. Now that the strategic balance in deliverable megatonnage has shifted to the Soviets, the naval forces of the U.S.S.R. are engaging in bold politico-military moves. The U.S.S.R.'s transformation from a land power to also being an aggressive oceanic power is bound to produce new aggressiveness. If they conclude that they are in the driver's seat in world affairs, the Soviets also may deduce that naval power offers the ultimate advantage—the final means of tipping the world power balance heavily in their favor. Furthermore, after a nuclear exchange, naval power would be the principal residual power available.

In considering the Soviet sea power surge, Americans need to be aware of the fact that any change in the strategic naval balance of the U.S.S.R. Vs. the U.S.A. is as threatening to the security of the United States as a relative U. S. decline in deliverable megatonnage versus the Soviet Union. A gap in naval power, like the megatonnage gap, would be enormously dangerous for the United States and its allies.

The critical factor in the future is the nature of the response the United States makes to the growth of Soviet naval forces. The United States has the naval experience and the technological ability to leave the Soviet Union far behind in terms of sea warfare forces. The real issue is whether the United States is determined to maintain and increase its supremacy on the oceans by building a larger and more completely modern fleet.

A clear position of U. S. naval superiority or dominance will help keep the peace and maintain the freedom of America and its allies. The Soviets have respect for strength, and contempt for lack of it. Thus, if the United States proceeds at full speed to augment its naval forces, the Soviet Union will not be able to wrest the trident from America's grasp.

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